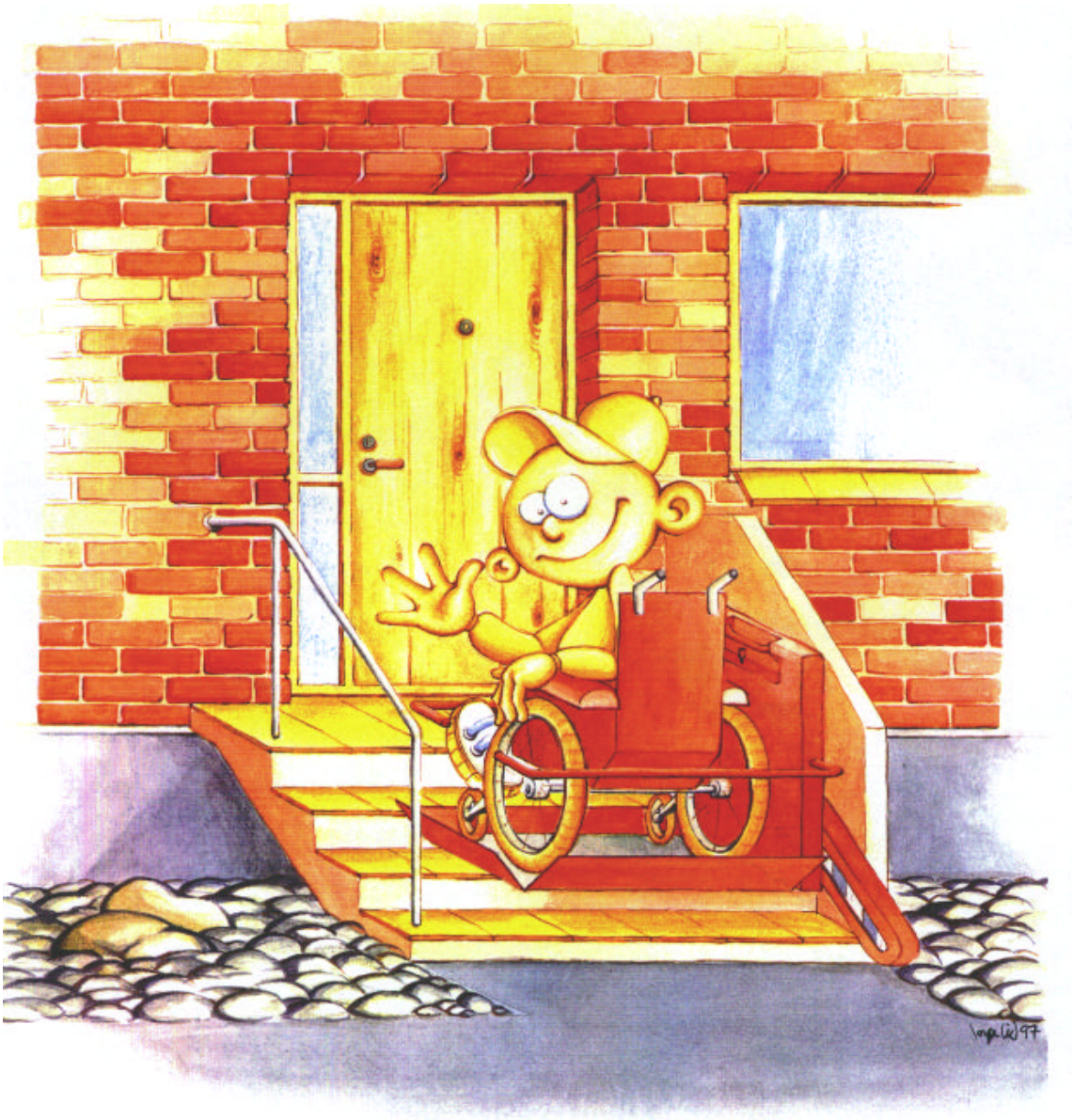
INSTALLATION MANUAL

BC PLATFORM LIFT type BCSA



BC lift a/s

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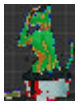
Contents.

Text	Section
Introduction……..…….…….	**2**
Tecnical details……..……..	**3**
Site requirements before lift installation…….…	**4**
Arriving on installation site ……..	**5**
Check all lift parts before installation start…..……...	**6**
Installation……	**7**
Test……..	**25**
 **Cleaning lift and site. Initial lubrication……..**	**32**
User instruction……..	**33**
Notes…….……	**34**

Introduction

Congratulation, you are about to install a BC Platformlift.

Why use this installation manual?

The BC Platform lift is an advanced staircase platform lift, specially developed for transporting a person with or without a wheelchair.

The description in this installation manual applies only to the BC Platform lift, and contains all the information you will need to make a correct and succesfull installation.

If you have any questions or commends to this manual or the equipment, please do not hesitate to contact BC Lift a/s

We whish you good luck.

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Before….

After.

TECHNICAL DETAILS.

General

Power supply voltage	3x380 VAC/1x220VAC	Rate of movement	12 cm/s
Frequency	50 Hz	Max. load on platform	225 kg
Current consumption	2.4 Amp	Relative humidity	10%-90%
Power consumption	0.55 kW	IP value	66
Fuses	8 Amp		

SITE REQUIREMENTS BEFORE LIFT INSTALLATION.

- Access to power supply close to the lift installation in the top operation panel.
- The power supply must comply according to technical details.
- The output from the power supply must be equipped with a main circuit breaker, according to local authority and safety regulations.

- The site must be clean and free from any obstacles.
- Access to power for hand tools.

ARRIVING ON INSTALLATION SITE.

- Introduce yourself to the client.

- Hand over the user manual to the client. The client can then become familiar with the content of the manual, before user instruction will take place.

- Check that the staircase is the same as that shown on the installation drawing.

- Check that site requirements before installation has been fulfilled.

- Bring in all the lift parts.

- Bring in all tools needed.

CHECK ALL LIFT ITEMS BEFORE INSTALLATION START.

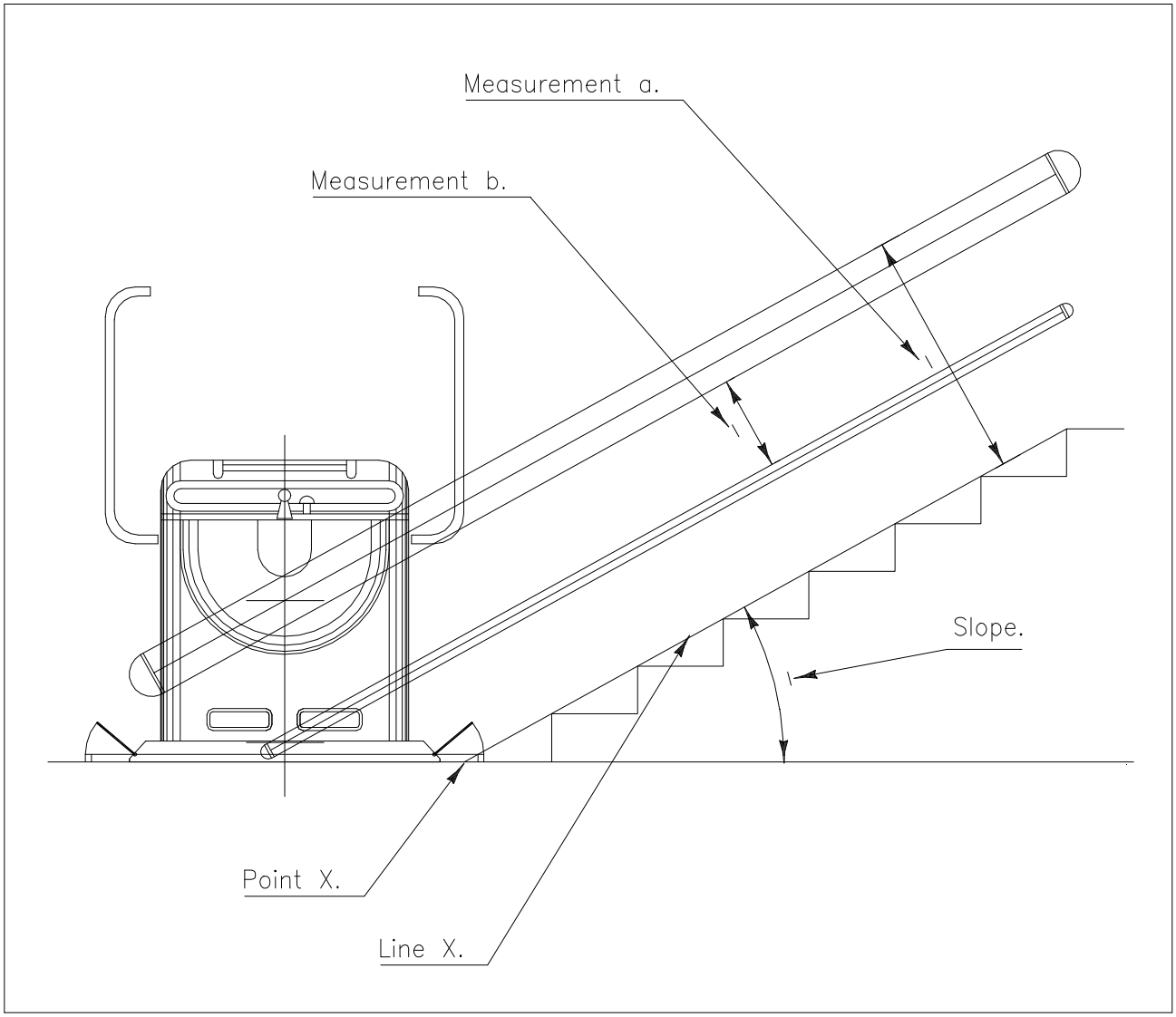
In order to reduce installation time and avoid unneccesary waste time, following lift items must be present before installation start.

- Main rail.
- Main rail end covers.
- Supporting rail.
- Lift body.
- Lift body shell.
- Lift platform.
- Top operating panel.
- Bottom operating panel.
- Platform kit.
- Bolts with expansion plugs,
  for either wall-or foot mounted rails.
- Electrical cables
- Safety bars
- Support wheels
- Emergency handle.

INSTALLATION.

Before installation can be initiated, the following basic measurements and conditions must be observed.
According to enclosed drawing, it is important to locate the straight line **X**, starting from the top of the staircase, called the top nose, down on top of the highest step and finally ending in point **X** on the floor.
We already have the slope of the staircase, determined at order time.

Using enclosed table, we can now find the two measurements **a** and **b.**
Measure **a** is the angular distance from line **X** to the upper side of the main rail.
Measure **b** is the angular distance between the lower side of the main rail and the upper side of the supporting rail.

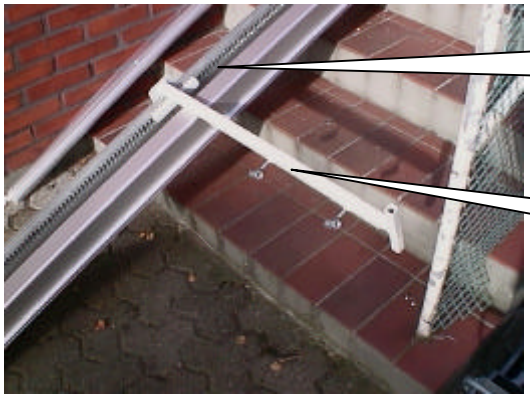


Installing the main rail.

Use the supporting rail to establish the line X. Make sure the rail is hold tight on the top nose. The highest step further down will then determine the slope of line X.

When measuring from the upper side of the supporting rail, remember to suptract the thicknes of the supporting rail from measure a.
Always take an angular measurement.

Always take min. 3 angular measurements down the line to position the main rail as accurate as possible.



Remove cover on main rail, to get access to the tooth bar.

Mount ajustable supports for lining up. (not standard).

Supporting rail.

Main rail with two supports.

Main rail is adjusted on the two supports so the marking on the wall, fits along with the upper side of the main rail.

The end of the main rail should be vertical above the top nose of the staircase.

Check for free space. Make sure that nothing exeeds the main rail

Drill all the holes.
Diameter: 12 mm.
Depth: min. 100 mm.

Insert: Plugs U12
and tight with screw:
M10 x 90.

In this situation,
a special designed
rail support is needed
for the lower end of
the main rail.
<u>Support used:</u> Type V

<u>The main rail is now installed.</u>

Installing the supporting rail.

The angular distance b from under side of main rail to upper side of supporting rail, is marked.

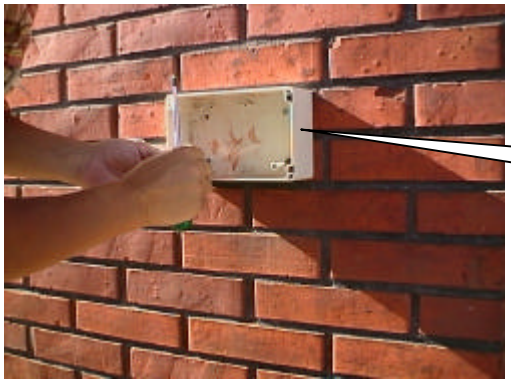
Drill all the holes.
Diameter: 8 mm.
Depth: min. 100 mm.
Insert: Plugs U8
and tight with screw:
M6 x 100.

The supporting rail should reach the ground/floor.

Rail installation completed.

Installation of Main - and Supporting rails are completed.

Installing operating panels and cable ducting.



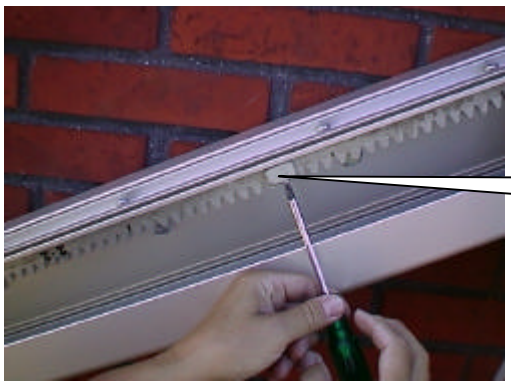
Installation of operating panel, downstairs.

Installation of operating panel, upstairs.

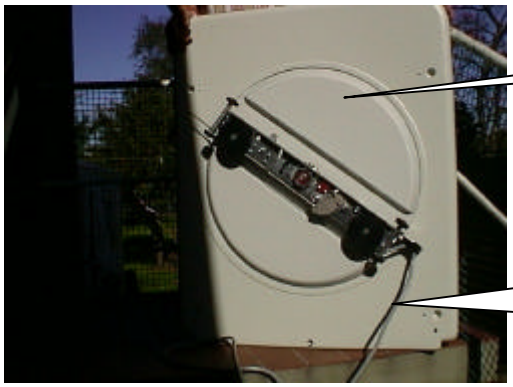
Cable ducting.

Installation of operating panels and cable ducting are completed.

Installing lift body.



Remove the upper end-stop.



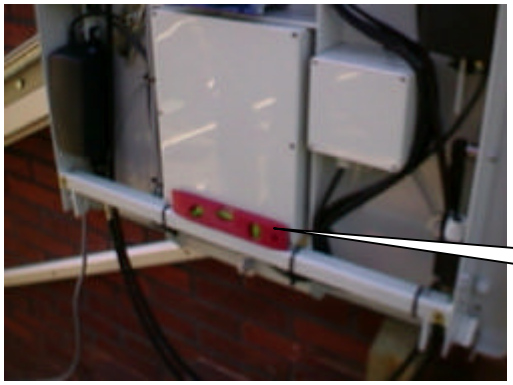
Back side of the lift body.

Remember to loosen the cable, before inserting the wheels in the track of the main rail. Insert from upper end.

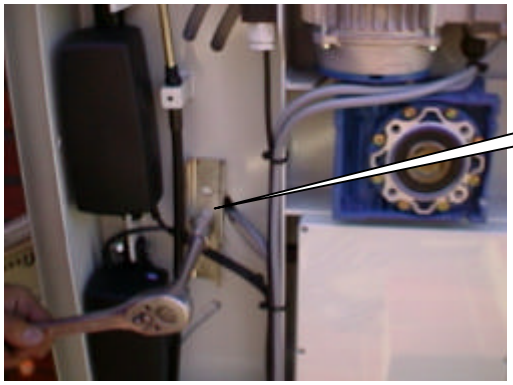
Lift is inserted from the upper end.

Lift is now hanging freely.

Installing support wheels on the lift body.



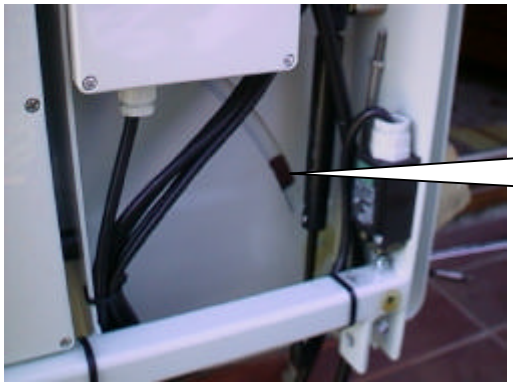
Use a spirit level, for the horizontal alignment .



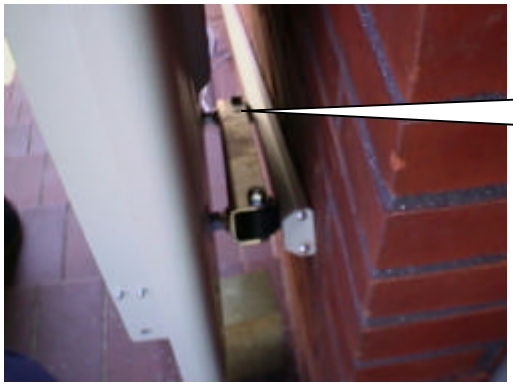
Tight this bolt in each side.

Liftbody is now hanging vertical, and this hole must point directly to middle of the support rail.

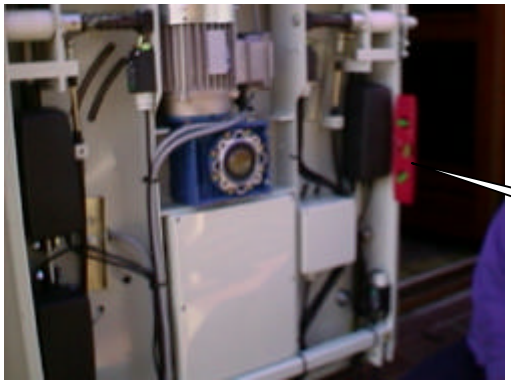
Drill a hole that points direct to the midle of the supporting rail.
See next picture.



The hole must be within the penetration on the backplate, and modified into a square of approx. the shown size.



Support wheels installed. Do not tight the bolts yet.



Use a spirit level, for the vertical alignment.

Use nuts and counter nuts to set the vertical alignmentn and tight all well.

Installation of lift body is now completed.

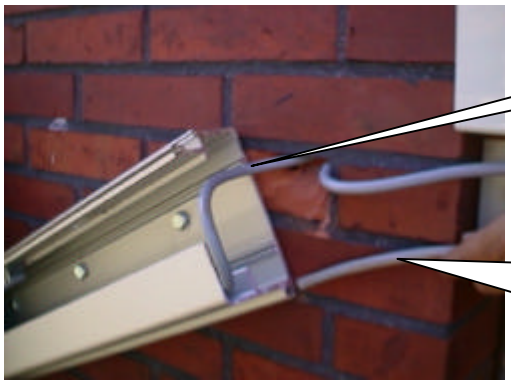
Installation of electrical cables.

Cable from lift body is inserted in the free end of the flexible cable ducting .

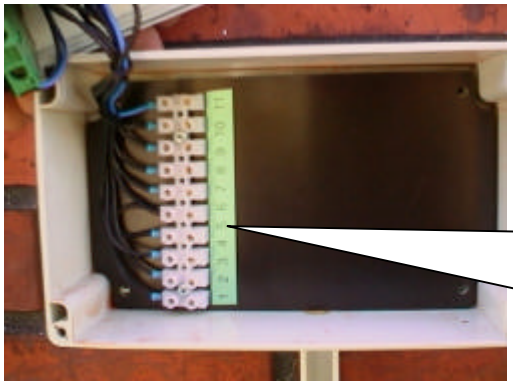
The free end of the flexible ducting, is pulled up to the back side of the lift body.

The free end of the flexible ducting, is locked/clipsed on the back side of the lift body.

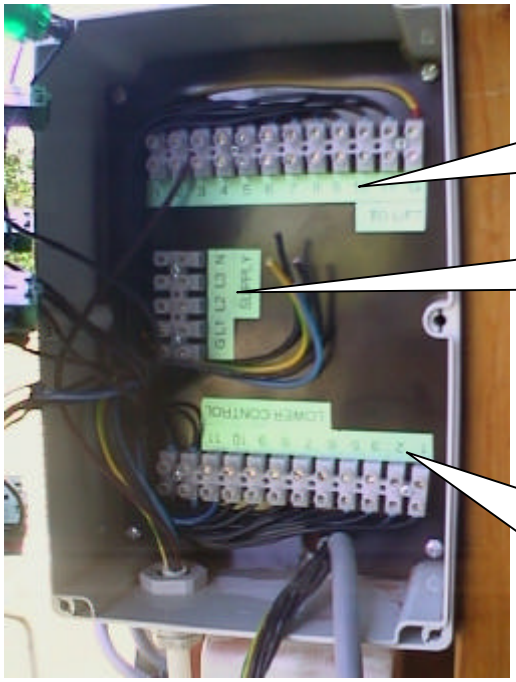
Cable from the lift, comming from the flexible ducting, to the upper control panel.



Cable to the lower control panel, comming from the upper control panel, is inserted in track in the aluminium rail, i.e. main rail.



Lower Control panel.
The terminals are numbered according to the wires in the cable, i.e. 1-2-3-5-6-7-8-9-10-11.
NOTE!! Wire number 4 and Earth are not used in the terminal.



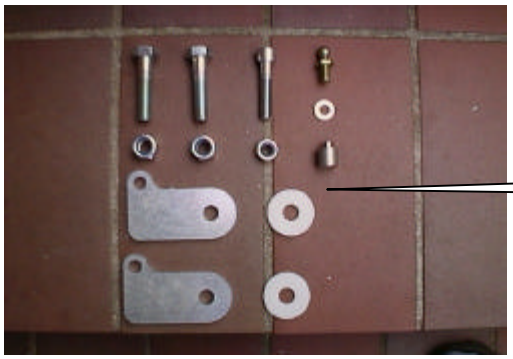
Upper control panel.
Terminals to LIFT, are numbered according to the wires in the cable, i.e. 1-2-3-4-5-6-7-8-9-10-11 and Earth.

Upper control panel.
Terminals to SUPPLY.
Connect 3 phases + E+N according to terminal marks.

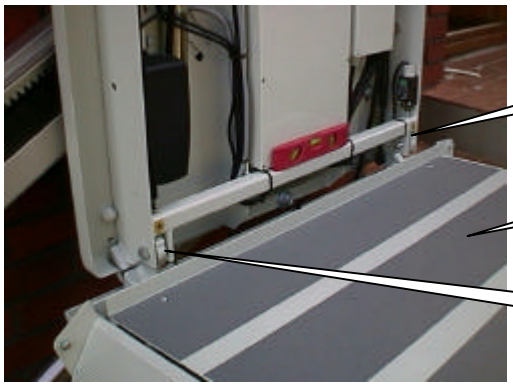
Upper control panel.
Terminals to the LOWER control panel, are numbered according to the wires in the cable, i.e. 1-2-3-5-6-7-8-9-10-11.
NOTE!! Wire number 4 and Earth are not used in the terminal.

Installation of electrical cables are now completed.

Installation of lift platform.



Platform kit.

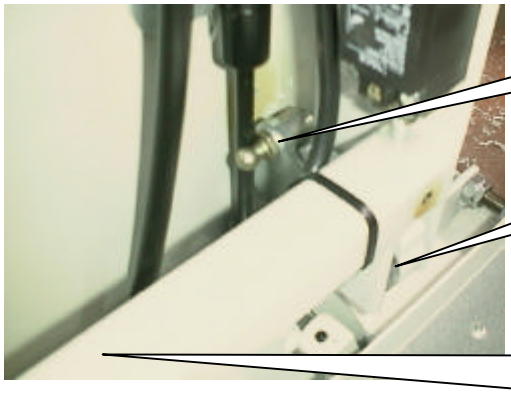


Bolt temporary inserted.

Platform on lift body.

Bolt temporary inserted.

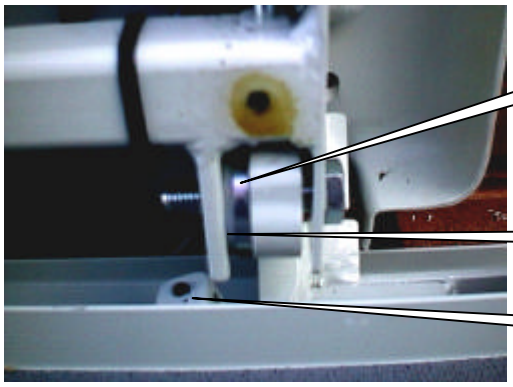
Assembly of arm for platform turning damper.



Arm for platform turning damper.

Arm mounted between the lift console and lift body flanges.

In the other side:
Arm for platform actuator mounted between the lift console and lift body flanges.

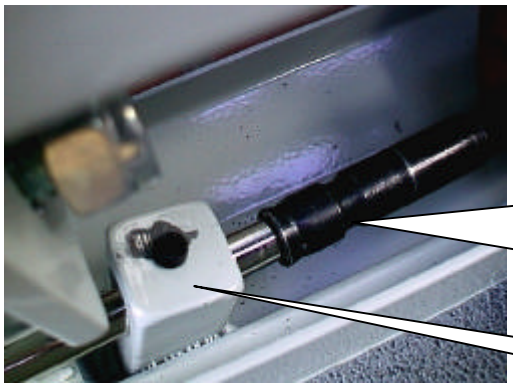


Arm in position.

Nylon shim inserted.

Bowden cable fixpoint.

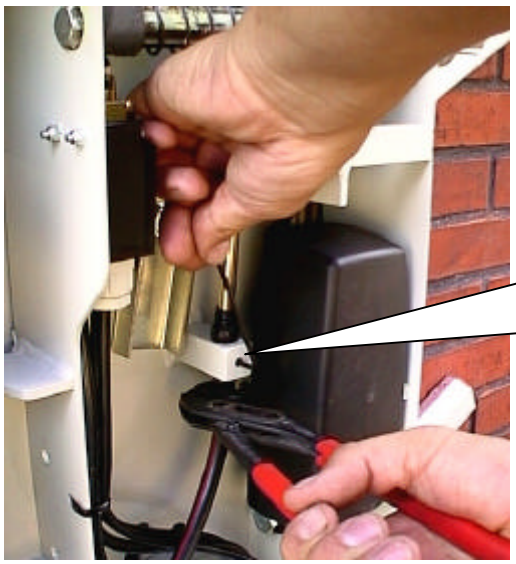
Installation of Bowden cables to ramps.



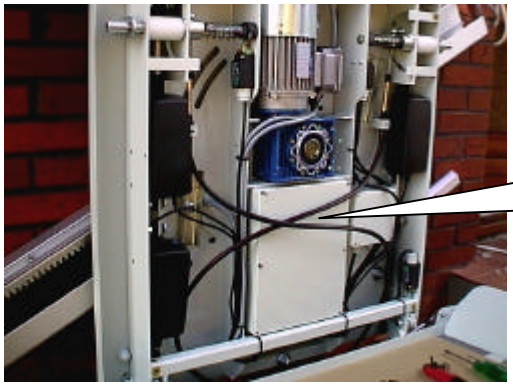
Remove the rubber gaskets from bowden cable ends, and push cable totally into the fixpoint and lock it with the centre screw. Centre of screw must hit this groove.

Bowden cable fixpoint with center screw.

Rubber gaskets re-mounted.

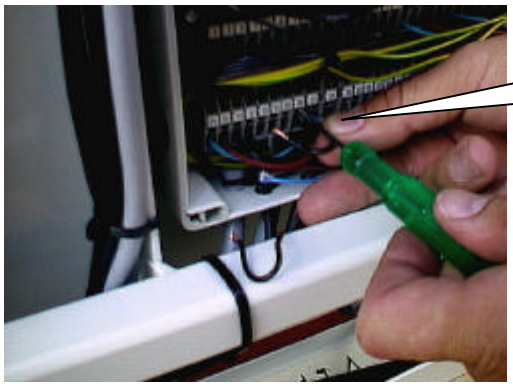


Loosen the bowden cable upper fixpoint with an Allen key. Turn the cable around, so it lays flat to the lift body. Tigh again.
See next picture.

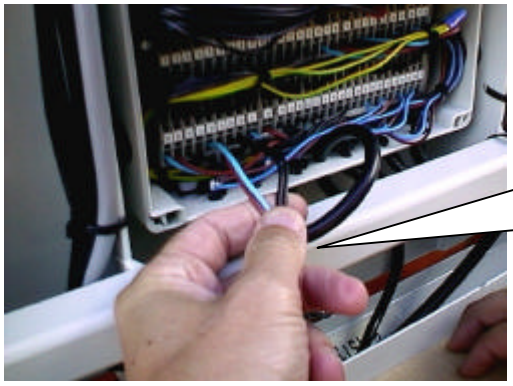


Bowden cables are now laying flat to the lift body, so outwards pressure on the body shell is avoided.

Electrical connection of platform to panel in lift body.

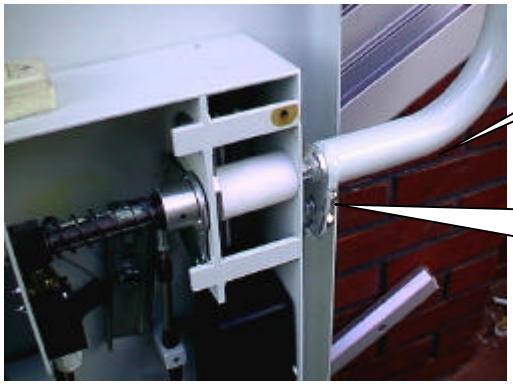


Remove the two short links between terminal 33-34 and 35-36.



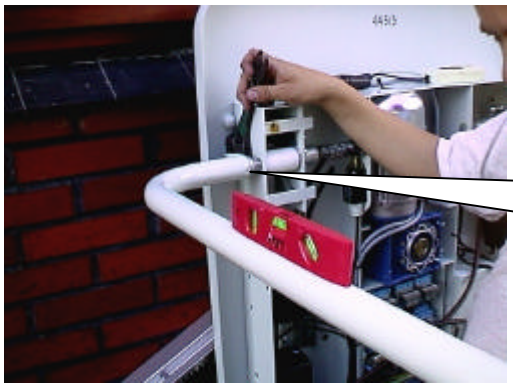
Cable from platform is connected as follows:
Blue wire to terminal 33.
Brown wire to terminal 34.
Black wire to terminal 35.
Black wire to terminal 36.

Installation of safety bars.



Safety bar.

Insert the safety bar on the spline shaft and use the bolt to fasten the safety bar light before alignment.



Use a spirit leveller to ajust the safety bar into horizontal position.
Tight the bolt as shown.

Ajustment of limit stop.

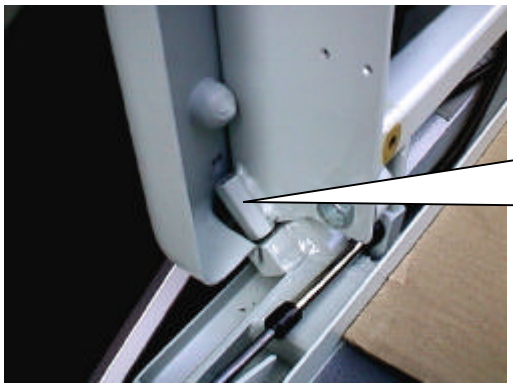
Ajust the lower limit stop so the platform will hang just above the ground/surface when the lift is stopped.

The lower ramp must have good contact to the ground/ surface when the lift has stopped in lower position and the ramp is tilted down.

Ajust the upper limit stop so the platform will hang just above the nose of the top step when the lift is stopped.

Make sure the upper ramp has good contact to the top surface of the stair, when the ramp is tilted down.

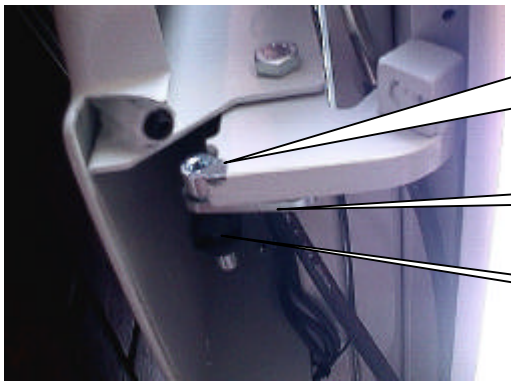
Ajustment of platform angle.



Use an Allen key and a spirit leveller to ajust the platform angle.
Platform angle on first time ajustment: app. 2° above horizontal.

Installing device for platform actuator.

Tools and bolt/nut.

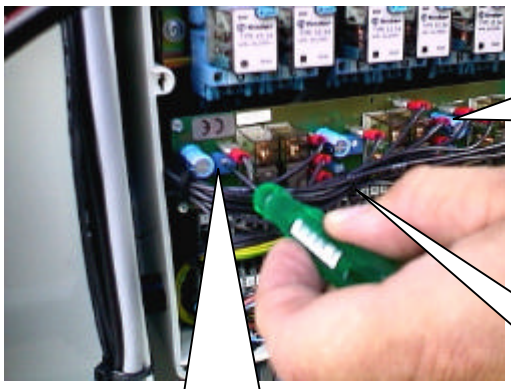


Bolt/nut.
Do not tight too much, since the parts must be able to turn.

Arm already installed.

Actuators moving part.

Max. load adjustment on platform motor and safety bars.

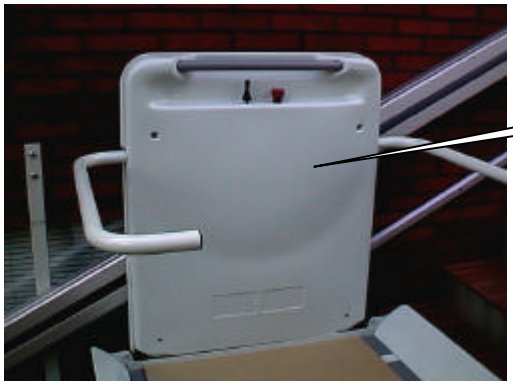


Potentiometer.
Upper safety bar.
Adjustment of allowed force of blockage, before safety system breaks off and stop the movement.

Potentiometer.
Lower safety bar.
Adjustment of allowed force of blockage, before safety system breaks off and stop the movement.

Potentiometer.
Platform motor.
Adjustment of allowed force of blockage, before safety system breaks off and stop the movement.

Mounting covers.



Lift body cover is mounted.

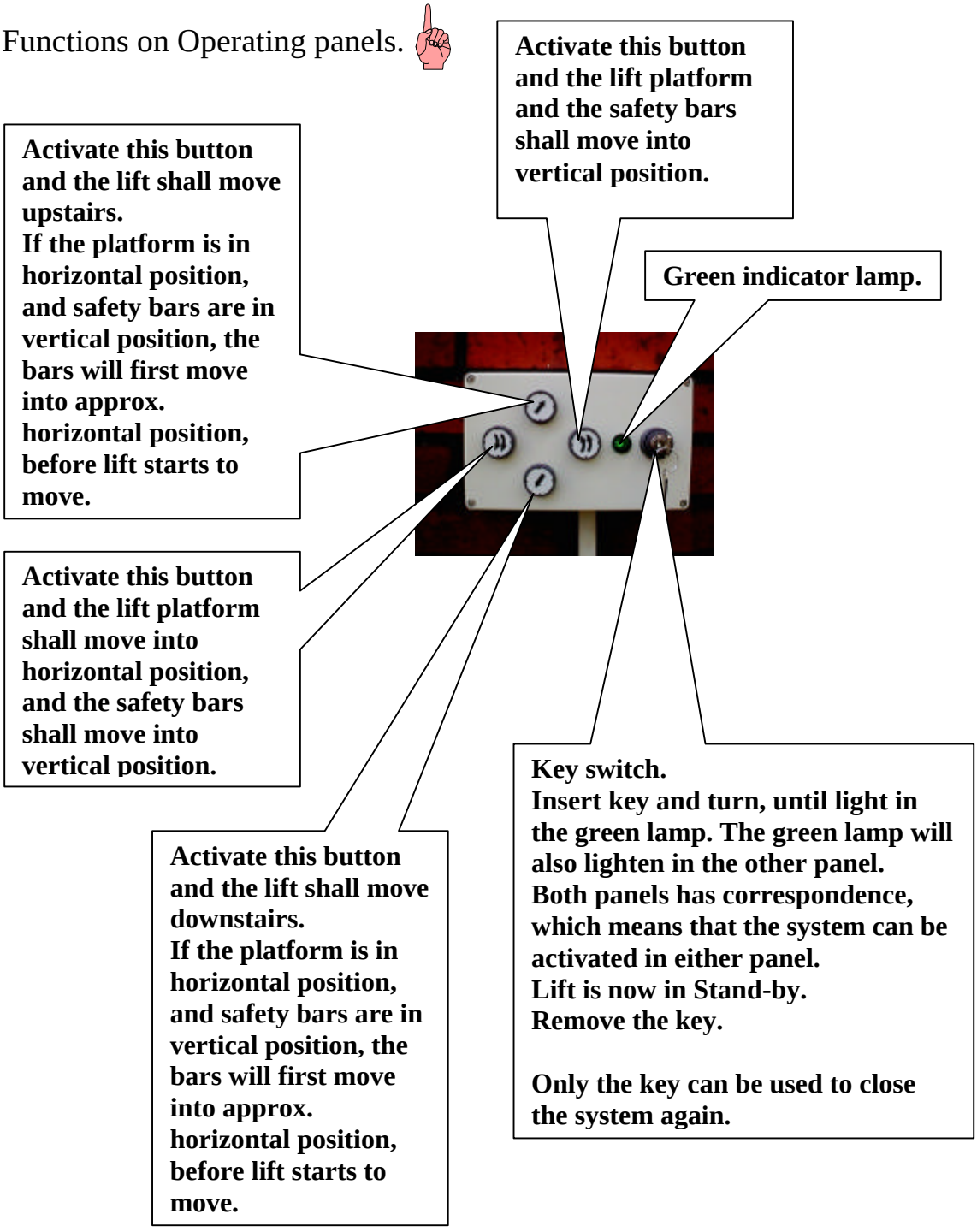
Covers on both ends on the main rail is mounted, using 2 pcs. of selfcutting screws per cover.

INSTALLATION COMPLETE.

TEST.

Test and check the following points:

- Functions on Operating panels.


Activate this button and the lift platform and the safety bars shall move into vertical position.
Activate this button and the lift shall move upstairs. If the platform is in horizontal position, and safety bars are in vertical position, the bars will first move into approx. horizontal position, before lift starts to move.
Green indicator lamp.
Activate this button and the lift platform shall move into horizontal position, and the safety bars shall move into vertical position.
Key switch. Insert key and turn, until light in the green lamp. The green lamp will also lighten in the other panel. Both panels has correspondence, which means that the system can be activated in either panel. Lift is now in Stand-by. Remove the key.
Only the key can be used to close the system again.
Activate this button and the lift shall move downstairs. If the platform is in horizontal position, and safety bars are in vertical position, the bars will first move into approx. horizontal position, before lift starts to move.

- Function of Main circuit breaker.

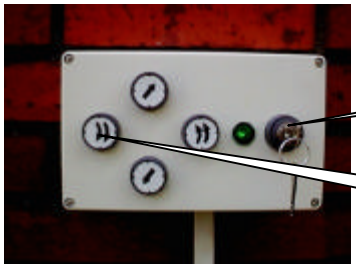
Turn the button and check that functions on the lift are dead.

- Functions on Joy stick.

The directional movement on both the lift and joy-stick must always correspond.
If not, open the upper control panel and switch 2 phases on terminals for SUPPLY, and test again.

- User functions on lift.

Lift is parked.



Activate key switch.

Activate to switch down platform.

Safety bars open.

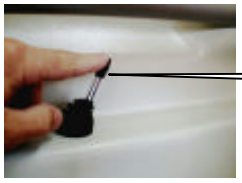
Platform down.

Ramps down.

Activate joy-stick i up-stairs direction.

safety bars closes.

Ramps are lifted.



Keep joy-stick activated.

Keep joy-stick activated, until the lift automatically ends up in the shown position.

Release the joy-stick.

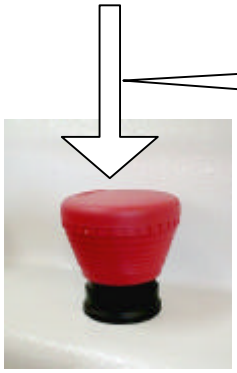
Activate joy-stick in down stairs direction.

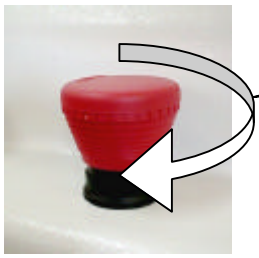
Keep joy-stick activated, until the lift automatically ends up in the shown position.

Release the joy-stick.

- Emergency stop.

Press the emergency stop down. All functions must terminate. The pushbutton stays down and the stop function is kept.



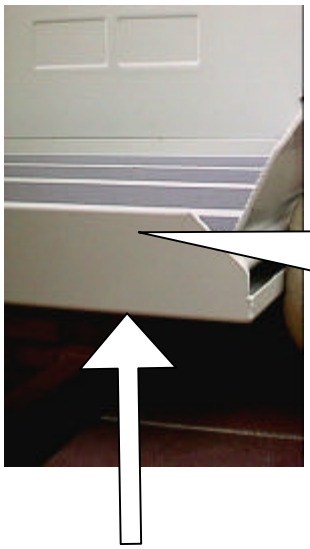


Release the emergency stop, using a twisted movement in the shown direction.

- Safety stop activated from the ramps.

An obstacle as shown, shall immediately stop the lift movement.
To release, run the lift in the other direction, and remove the obstacle.

- Safety stop activated from the bottom part of platform.



An obstacle underneath the platform, lift the movable under part, and shall immediately stop the lift movement.

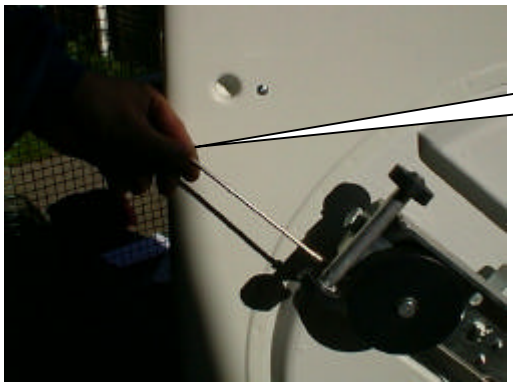
To release, run the lift in the other direction, and remove the obstacle.

- Safety stop on safety bar movements.

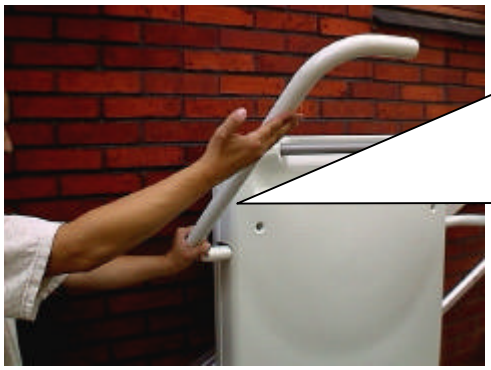
If the automatic movement on the safety arms are blocked, the movement immediately stops.

- **Safety stop caused by overspeed.**

  The lift is equipped with a mechanic stop, which will be activated if the normal lift speed is exeeded. If activated, the stop function can be reset by pushing the shown metal pin.
  It is recommended to contact BC lift a/s tlf. +45 98435444 or an other service company in case of above mentioned event.



- Manual movements of safety bars, for evacuating the lift.



First push the bar against the lift body. Always push in the curve and hold it there. The bar is spring loaded.

Then turn the bar upwards in a soft movement.

Always reset the bar manually into horizontal position again, before it is possible to continue in automatic mode.

- Manual movements of platform, for evacuating the lift.

Simply take the platform and lift manually by the hand.

Must be hold by hand in upright position.

Cleaning lift and site.

Clean the lift using a moisted cloth with a soft detergent.

Clean the site using a sweeper or a vacuum cleaner

NOTE!!!!!

NEVER CLEAN, USING A HIGH PRESSURE CLEANER.

NEVER CLEAN USING A HOSE WITH NORMAL WATER PRESSURE.

NEVER WASH DIRECT ON ELECTRICAL INSTALLATIONS.

INITIAL LUBRICATION.

Lubricate the tooth bar, using a low viscosity syntetic oil on spray.

USER INSTRUCTION.

NOTE !!! THIS PART OF THE WORK MUST ALWAYS BE DONE.

- Explain the operation of the installation with the aid of the user`s manual.

- Check that everything is fully understood, by letting the user demonstrate the functions for you.

NOTES.